

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
18 September 2003 (18.09.2003)

PCT

(10) International Publication Number
WO 03/077182 A1

(51) International Patent Classification⁷: **G06F 19/00**,
G06T 5/20

(74) Agent: **KARAGHIOSOFF, Giorgio, A.**; Studio
Karaghiosoff e Frizzi SAS, Via Pecorile, 25, I-17015
Celle Ligure (IT).

(21) International Application Number: PCT/EP03/02400

(22) International Filing Date: 10 March 2003 (10.03.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
02425141.5 11 March 2002 (11.03.2002) EP

(71) Applicants (for all designated States except US):
BRACCO IMAGING S.P.A. [IT/IT]; Via E. Folli, 50,
I-20134 Milano (IT). **SEMEION** [IT/IT]; Viale di Val
Fiorita, 88, I-00144 Roma (IT).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **BUSCEMA, Paolo**,
Massimo [IT/IT]; Via Nicola Coviello, 47, I-00163 Roma
(IT).

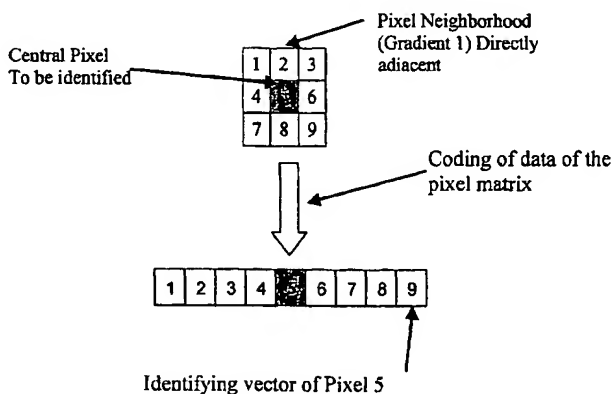
Published:

— with international search report

[Continued on next page]

(54) Title: A METHOD FOR ENCODING IMAGE PIXELS, A METHOD FOR PROCESSING IMAGES AND A METHOD FOR PROCESSING IMAGES AIMED AT QUALITATIVE RECOGNITION OF THE OBJECT REPRODUCED BY ONE OR MORE IMAGE PIXELS

Pixel and its spatial context 2D



(57) Abstract: A method for encoding pixels of digital or digitized images, i.e. images consisting of a set of image dots, named pixels in two-dimensional images and voxels in three-dimensional images, each of said pixels or voxels being represented by a set of values which correspond to a visual aspect of the pixel on a display screen or in a printed image. According to the invention, the pixels or voxels (5, 14) of at least one portion of interest of the digital or digitized image or each pixel or voxel (5, 14) of the set of pixels or voxels which form the image is uniquely identified with a vector whose components are given by the data of the pixels or voxels to be encoded (5, 14) and by the data of at least one or at least some or of all of the pixels (1, 2, 3, 4, 6, 7, 8, 9; 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27) around the pixels to be encoded and arranged within a predetermined subset of pixels or voxels included in the whole set of pixels or voxels which form the image.

WO 03/077182 A1



— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.